

Title (en)
Ultrasonic probe deflection sensor

Title (de)
Ultraschallsonde mit Ablenkungssensor

Title (fr)
Capteur à déflexion de sonde à ultrasons

Publication
EP 1870045 A1 20071226 (EN)

Application
EP 07252530 A 20070622

Priority
US 47309706 A 20060622

Abstract (en)
An ultrasonic surgical instrument (12) having a deflection detection circuit (200) is disclosed. The instrument includes an ultrasonic probe (21) configured to conduct electricity and positioned a predetermined distance from one or more tubes (46). The ultrasonic probe is adapted to be operatively connected to an ultrasonic generator (14) for vibration. The instrument also includes a deflection detection circuit having a secondary power source (202) and an indicator (204), the power source is configured to supply electrical current to the tube, the probe, and the indicator, wherein the circuit is configured to close in response to the probe contacting the tube when the probe is deflected toward the tube thereby activating the indicator.

IPC 8 full level
A61B 17/32 (2006.01); **A61B 17/22** (2006.01)

CPC (source: EP US)
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Designated contracting state (EPC)
DE ES FR GB IE IT

Designated extension state (EPC)
AL BA HR MK YU

DOCDB simple family (publication)
EP 1870045 A1 20071226; **EP 1870045 B1 20090610**; AU 2007202837 A1 20080117; AU 2007202837 B2 20130207; CA 2591637 A1 20071222; CA 2591637 C 20141216; DE 602007001262 D1 20090723; ES 2326701 T3 20091016; JP 2008000611 A 20080110; JP 2012210445 A 20121101; JP 5175491 B2 20130403; US 2008097501 A1 20080424

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EP 07252530 A 20070622; AU 2007202837 A 20070619; CA 2591637 A 20070613; DE 602007001262 T 20070622; ES 07252530 T 20070622; JP 2007164251 A 20070621; JP 2012145743 A 20120628; US 47309706 A 20060622